[6450-01-P]

DEPARTMENT OF ENERGY

National Nuclear Security Administration

Amended Record of Decision for the Continued Operation of the Y-12 National Security Complex (Y-12)

AGENCY: National Nuclear Security Administration, Department of Energy.

ACTION: Amended record of decision.

SUMMARY: The National Nuclear Security Administration (NNSA), a separately organized agency within the U.S. Department of Energy (DOE), is amending its October 2019 Amended Record of Decision (AROD) for the Continued Interim Operation of the Y-12 National Security Complex (2019 AROD) to continue to implement its approach for meeting enriched uranium (EU) requirements, by upgrading existing EU processing buildings and constructing a new Uranium Processing Facility (UPF). Since publication of the 2019 AROD, NNSA finalized a *Supplement Analysis for the Final Site-Wide Environmental Impact Statement for the Y-12 National Security Complex, Earthquake Accident Analysis* (DOE/EIS-0387-SA-04) (2020 SA), which presented an accident analysis of earthquake consequences at the Y-12 site using updated seismic hazard analyses. Based on the analysis in the 2020 SA, NNSA determined that no additional NEPA documentation is required. This new 2020 AROD combines elements of the two alternatives previously analyzed in the 2011 *Final Site-Wide Environmental Impact Statement for the Y-12 National Security Complex* (DOE/EIS-0387) (Y-12 SWEIS), and separates the single-structure UPF design concept into a new design consisting of multiple buildings, with each constructed to safety and security requirements appropriate to the building's function. All other defense mission activities and non-defense mission activities conducted at Y-

12 under the alternative selected for implementation in the 2011 ROD would continue to be implemented.

FOR FURTHER INFORMATION CONTACT: For further information on this 2020 AROD or on the 2020 SA, contact: Ms. Terri Slack, Field Counsel, U.S. Department of Energy, National Nuclear Security Administration, NNSA Production Office, P.O. Box 2050, Oak Ridge, TN 37831, (865) 576-1722. This 2020 AROD and related NEPA documents are available at *https://www.energy.gov/nnsa/nnsa-nepa-reading-room*.

SUPPLEMENTARY INFORMATION:

Background

Y-12 is NNSA's primary site for uranium operations, including EU processing and storage, and is one of the primary manufacturing facilities for maintaining the U.S. nuclear weapons stockpile. Y-12 is unique in that it is the only source of secondaries, cases, and other nuclear weapons components for the NNSA nuclear security mission. In the Y-12 SWEIS, NNSA analyzed the potential environmental impacts of ongoing and future operations and activities at Y-12, including alternatives for changes to site infrastructure and levels of operation. Five alternatives were analyzed in the Y-12 SWEIS: (1) No Action Alternative (maintain the status quo), (2) UPF Alternative, (3) Upgrade in-Place Alternative, (4) Capability-sized UPF Alternative, and (5) No Net Production/Capability-sized UPF Alternative. In the 2011 ROD (July 20, 2011, 76 FR 43319), NNSA decided to implement the Capability-sized UPF Alternative, to continue operation of Y-12, and to construct and operate a single-structure Capability-sized UPF at Y-12 as a replacement for certain existing buildings. Subsequent to the publication of the

2011 ROD, concerns about UPF cost and schedule growth prompted NNSA to reevaluate its strategy for meeting EU requirements, including the UPF design approach.

Under the updated strategy, approved in a July 12, 2016, Amended Record of Decision (2016 AROD), NNSA would meet EU requirements using a revised approach of upgrading existing EU processing buildings and constructing a smaller-scale UPF facility, implementing a new multiple building design approach. The updated strategy is consistent with recommendations from a project peer review of the UPF ["Final Report of the Committee to Recommend Alternatives to the Uranium Processing Facility Plan in Meeting the Nation's Enriched Uranium Strategy"] conducted in 2014. As approved in the 2016 AROD, under the new multiple building design approach, the single-structure UPF concept would be separated into multiple buildings, each being constructed to safety and security requirements appropriate to the building's function and NNSA would perform necessary maintenance and upgrades to some existing EU facilities.

As the result of a lawsuit filed against DOE and NNSA, the federal district court issued several rulings related to NNSA's NEPA documents for Y-12. See the 2019 AROD ((October 4, 2019, 84 FR 53133)) for a detailed discussion of that lawsuit and the associated NEPA documents for Y-12. Based on its determination that additional NEPA analysis of new information pertaining to seismic risks at Y-12 was needed, the judge vacated several of the Y-12 NEPA documents that were prepared subsequent to the Y-12 SWEIS, including the 2016 AROD. However, the court held that NNSA's revised strategy of upgrading existing EU buildings pursuant to the Extended Life Program and constructing UPF with multiple buildings was adequately considered as part of the Y-12 SWEIS. Consequently, the court did not vacate the 2011 ROD or Y-12 SWEIS or enjoin any activities at Y-12. The court further held that NNSA is not required to prepare a

Supplemental Environmental Impact Statement for the UPF Project or the Extended Life Program. See Memorandum Opinion and Order in Case 3:18–cv–00150–PLR– DCP. Thus, consistent with 10 CFR 1021.315(e), NNSA determined that the existing 2011 ROD for the Y-12 SWEIS could be amended, and in October 2019, NNSA issued the 2019 AROD (84 FR 53133) that authorized continuing implementation of the improvements previously authorized in the vacated 2016 AROD on an interim basis, pending the completion of the additional seismic analysis ordered by the court. In accordance with the court's determination that additional NEPA analysis of new information pertaining to seismic risks at Y-12 is needed, NNSA prepared the 2020 SA.

Summary of Impacts Associated With Continued Operation of Y-12

NNSA prepared the 2020 SA to present an unbounded accident analysis of earthquake consequences at Y-12, using updated seismic hazard analyses. The 2020 SA presents the earthquake impacts for the UPF and Extended Life Program facilities based upon updated seismic hazard information and analyses, including analysis of the 2014 U.S. Geological Survey seismic hazard/maps. The 2020 SA compares and contrasts those impacts with impacts from the Y-12 SWEIS accident analysis. Two types of impact comparisons are presented: (1) facility-to-facility; and (2) alternative-to-alternative. These comparisons support conclusions/determinations as to whether the earthquake consequences constitute a substantial change that is relevant to environmental concerns; or if the new seismic information constitutes significant new circumstances or information relevant to environmental concerns and bearing on continued operations at Y-12 compared to the analysis in the Y-12 SWEIS.

As discussed in the 2020 SA, the potential impacts to non-involved workers and the offsite population associated with an earthquake accident at Y-12 would be less than impacts presented

in the Y-12 SWEIS, both in considering the potential consequences of such an accident as well as the risks that such an accident would occur. The 2020 SA shows that the UPF design-basis earthquake accident and a seismic-induced criticality event in either the 9215 Complex or 9204-2E Facility (the two existing EU buildings)—or both facilities combined—would have insignificant impacts to non-involved workers and the offsite population and would have a very low likelihood of occurring. Under the worst case scenario of a beyond design-basis earthquake at the UPF, consequences of less than one latent cancer fatality would likewise be expected to the offsite population and non-involved workers and would have an extremely low risk of occurring. The 2020 SA also confirms that potential impacts to involved workers would be similar to or less than impacts presented in the 2011 SWEIS. Based on the results of the 2020 SA, NNSA determined that: (1) the earthquake consequences and risks do not constitute a substantial change; (2) there are no significant new circumstances or information relevant to environmental concerns; and (3) no additional NEPA documentation is required at this time.

Amended Decision

Based on the Y-12 SWEIS and the analysis in the 2020 SA, NNSA has decided to continue to operate Y-12 to meet the stockpile stewardship mission critical activities assigned to the site. NNSA will also meet EU requirements using a hybrid approach of upgrading existing EU buildings under its Extended Life Program and separating the single-structure UPF into multiple buildings, with each constructed to safety and security requirements appropriate to the building's function. This amended decision will enable NNSA to maintain the required expertise and capabilities to deliver uranium products while modernizing production facilities. This amended decision to continue operations will avoid many of the safety risks of operating aged buildings and equipment by relocating processes that cannot be sustained in existing, enduring buildings or

through process improvements. Through the Extended Life Program, mission-critical existing and enduring buildings and infrastructure will be maintained and/or upgraded, which will enhance safety and security at the Y-12 site.

Signing Authority

This document of the Department of Energy was signed on September 18, 2020, by Lisa E. Gordon-Hagerty, Under Secretary for Nuclear Security and Administrator, NNSA, pursuant to delegated authority from the Secretary of Energy. That document with the original signature and date is maintained by DOE. For administrative purposes only, and in compliance with requirements of the Office of the Federal Register, the undersigned DOE Federal Register Liaison Officer has been authorized to sign and submit the document in electronic format for publication, as an official document of the Department of Energy. This administrative process in no way alters the legal effect of this document upon publication in the *Federal Register*.

Signed in Washington, DC, on September 22, 2020.

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Treena V. Garrett
Federal Register Liaison Officer,
U.S. Department of Energy

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